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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/896,646	06/29/2001	Roy Thomas Derryberry	NC17148	8524

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EXAMINER
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TRINH, TAN H

ART UNIT	PAPER NUMBER
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2684

DATE MAILED: 03/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/896,646

Applicant(s)

DERRYBERRY ET AL.

Examiner

TAN TRINH

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 5-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 5-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Harrison (U.S. Patent No. 6434366).

Regarding claim 5, Harrison teaches a method for providing feedback from a mobile station to a base station based on predicted information (see fig. 1 and 9), the method comprising: performing propagation measurements for a plurality of propagation media (see fig. 1, col. 3, lines 26-col. 4, line 23), estimating a representative value for each of the at least two of the plurality of propagation media based on the propagation measurements from at least two antenna (see figs. 1 and 5-9, col. 3, lines 26-col. 4, line 38), performing prediction of future propagation measurements for each of the plurality of propagation media (see figs. 7-9, hypothesis, col. 3, lines 26-col. 4, line 38 and col. 5, lines 40-col. 6, lines 33 and col. 9, lines 51-col. 10, lines 21), and generating the feedback information based on prediction of further propagation measurements (see figs. 6-9, col. 3, lines 53-col. 4, lines 23 and col. 9, lines 51-col. 10, line 21).

Regarding claim 6, Harrison teaches the feedback information to the base station using a feedback channel (see col. 3, lines 53-col. 4, lines 38 and col. 6, lines 15-60).

3. Claims 7-10, 12-17 and 19-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Whinnett (U.S. Patent No. 5999826).

Regarding claims 7, 14, 21, 24 and 27, Whinnett teaches a method for supporting signal transmission (see figs. 1-2), the method comprising: receiving a first pilot signal transmitted over one of a plurality of distinct channels (see figs. 3-5, col. 1, lines 36-52, col. 3, lines 9-18, and col. 7, line 33-col. 8, line 23), receiving a second pilot signal transmitted over another one of the distinct channel (see figs. 3-5, col. 1, lines 36-52, col. 3, lines 9-18, and col. 7, line 33-col. 8, line 23), wherein the first pilot signal and the second pilot signal are identical (see fig. 6, reference signals, col. 7, lines 54-60 and col. 13, lines 57-67), determining weights, corresponding to the channels transporting the signals, based on the received signal; and sending feedback information based on the determined weights to the base station (see figs. 1-6, col. 5, lines 27-col. 8, line 37).

Regarding claims 8 and 15, Whinnett teaches receiving a modulated carrier signal; and demodulating the carrier signal to recover a data stream (see fig. 1, col. 2, lines 29-36).

Regarding claims 9 and 16, Whinnett teaches modulating a data stream for transmission back to the base station (see fig. 1, col. 5, lines 42-50).

Regarding claims 10 and 17, Whinnett teaches quantizing the weights as the feedback information (see figs. 4-5, col. 5, lines 27-col. 6, line 28).

Regarding claims 12 and 19, Whinnett teaches wherein the weights are distinct for each channel (see col. 7, line 54-col. 8, line 23).

Regarding claims 13, 20, 23 and 26, Whinnett teaches wherein the feedback information is transmission back to the base station via feedback channel (see figs. 1-6, col. 5, lines 27-col. 8, line 37).

Regarding claims 22 and 25, Whinnett teaches wherein the weight in the feedback information are utilized to assign antenna weights (see figs. 3-5, col. 8, lines 1-23).

Regarding claim 28, Whinnett teaches wherein the weighting values are determined at periodic interval from information obtained from the first signal and the second signal (see fig.12, col. 13, lines 11-56).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

Art Unit: 2684

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 11 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whinnett (U.S. Patent No. 5999826) in view of Harrison (U.S. Patent No. 6434366).

Regarding claims 11 and 18, Whinnett fails to teach the weights are determined every Power control group. However, Harrison teaches the weights are determined every Power control group (see figs. 9-10, col. 9, lines 30-65)

Therefore, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify above teaching of Whinnett and by the provide of the teaching of Harrison on the Power control group, in order to provide user with transmitted constant power (see Harrison col. 9, lines 61-65).

### ***Response to Arguments***

6. Applicant's arguments with respect to claims 5-28 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

7. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

**(571) 273-8300, (for Technology Center 2600 only)**

*Hand-delivered responses should be brought to the Customer Service Window (now located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314).*

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tan Trinh whose telephone number is (571) 272-7888. The examiner can normally be reached on Monday-Friday from 9:30 AM to 6:00 PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiners supervisor, Anderson, Matthew D., can be reached at (571) 272-4177.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **Technology Center 2600 Customer Service Office** whose telephone number is (703) 306-0377.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tan H. Trinh  
Division 2618  
March 15, 2006



Anderson, Matthew D. (SPE 2618)